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Catherine E. V	Volf	HOBBS, LISA JOE		
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			10/02/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Application No.	Applicant(s)	
10/581,404	LYE ET AL.	
Examiner	Art Unit	
Lisa J. Hobbs	1657	

Office Action Summary	Examiner	Art Unit						
	Lisa J. Hobbs	1657						
The MAILING DATE of this communication appears on the cover sheet with the correspondence address								
Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after 55% (6) MONTHS from the inemiting date of the communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire 50% (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply with 10 maximum. Statutory period will apply and will expire 50% (6) MONTHS from the mailing date of this communication, and the property of the communication.  - Failure to reply within the set or extended period for reply with 10 maximum. Set of Zern 1.704(b).								
Status								
Responsive to communication(s) filed on	action is non-final. nce except for formal matters, pro		e merits is					
Disposition of Claims	, ,							
· _								
4)⊠ Claim(s) 1-20 is/are pending in the application.  4a) Of the above claim(s) is/are withdraw  5)□ Claim(s) is/are allowed.  6)⊠ Claim(s) 1-20 is/are rejected.  7)□ Claim(s) is/are objected to.  8)□ Claim(s) are subject to restriction and/or	vn from consideration.							
Application Papers								
9) The specification is objected to by the Examiner 10) The drawing(s) filed on is/are: a   _ acce Applicant may not request that any objection to the c Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Ex	epted or b)  objected to by the l drawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	e 37 CFR 1.85(a). jected to. See 37 C						
Priority under 35 U.S.C. § 119								
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some colling None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.								
Attachment(s)								
1) Notice of References Cited (PTO-892)   Notice of Draftsperson's Patent Drawing Review (PTO-948)   Information Disclosure Statement(s) (PTO/SSIDE)   Paper No(s)Mail Date	4) Interview Summary Paper No(s)/Mail D: 5) Notice of Informal F 6) Other:	ate						

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### DETAILED ACTION

# Priority

Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged.

#### Claim Status

Claims 1-20 are active in the case. Claims 1-20 are under examination; no claims are withdrawn as drawn to a non-elected invention.

# **Double Patenting**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January I, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 17, 18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2, 6-17 of copending Application No.

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11/513,500. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications recite methods of detecting fungi comprising contacting a surface with a detector and observing color changes when microbes are present.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 17-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 18-31 of copending Application No. 

11/303,001. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications recite methods of detecting fungi comprising contacting a surface with a detector and observing color changes when microbes are present.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 17, 19-20 are provisionally rejected on the ground of nonstatutory obviousnesstype double patenting as being unpatentable over claims 1-20 of copending Application No. 11/847,569. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications recite methods of detecting fungi comprising contacting a surface with a detector and observing color changes when microbes are present.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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Claims 14-15 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2, 6, 11-20 of U.S. Patent No. 7,282,349.

Although the conflicting claims are not identical, they are not patentably distinct from each other because all claims recite products, including wipes and tissue, which comprise a dye that reacts in the presence of bacteria and provides a visual change for recognition of bacterial contamination

Claims 14-15 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 3 of U.S. Patent No. 7,300,770. Although the conflicting claims are not identical, they are not patentably distinct from each other because all claims recite products, including wipes and tissue, which comprise a dye that reacts in the presence of bacteria and provides a visual change for recognition of bacterial contamination.

Claims 17-20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1, 14 of U.S. Patent No. 7,399,608. Although the conflicting claims are not identical, they are not patentably distinct from each other because all claims recite products, including wipes and tissue, which comprise a dye that reacts in the presence of bacteria and provides a visual change for recognition of bacterial contamination.

# Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 12-15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Berger et al. (US 3,496,066). Berger et al. teach a "diagnostic agent for use in the detection of bacteria" wherein "the presence or absence of color formation, as well as the degree thereof, being directly related to the amount, if any, of the bacteria present" (col. 1-2 bridging paragraph). They teach that the detection "is carried out by bringing together the biological fluid to be investigated with a liquid or a solid [agar gel, see col. 4, lines 58-60] nutrient medium and a nongrowth inhibiting amount of a [dye] compound" (col. 3, lines 65-68). The also discuss that "an upper limitation of the amount of [dye] compounds...to be added is necessary because the compounds possess certain bactericidal or bacteriostatic properties (col. 4, lines 38-40, also see lines 17-23). As well, they teach "tablets" of "filter paper strips" which comprise the dye compounds (col. 4, lines 63-65).

Claim1-3, 6-9, 11-13, 16-17, 19-20 rejected under 35 U.S.C. 102(b) as being anticipated by Inoue (JP 11083849). Inoue teaches a composition wherein urine is dyed with a dyeing agent and passed through flow cytometry where it is irradiated with green light. The amount of scattered light and fluorescence emitted from the dyed formed element is measured. [Wherein] the dyeing agent is...merocyanine" dyes (abstract).

Claims 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Irish. Irish teaches a "method of determining the quantity of living organisms at the surface of an object" by

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spraying a bioluminescent agent onto the surface and then monitoring the amount of fluorescence to correlate with the quantity of bacteria present (abstract).

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior att are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- Determining the scope and contents of the prior art.
- Ascertaining the differences between the prior art and the claims at issue.
- Resolving the level of ordinary skill in the pertinent art.
- Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berger et al., Inoue, Irish, and LaClair (US 5,958,673 A). As discussed above, Berger et al. teach compositions and methods of detecting bacterial presence visually, including the creation of test strips, using gels and liquids wherein the coloration is proportional to the bacterial presence. Inoue teaches bacterial detection in liquids using a flow-through apparatus and merocyanine dyes. Irish teaches methods and compositions for bacterial detection comprising spraying reagents of interest onto objects and detecting the resultant fluorescence. Berger et al. particularly teach that the detection properties of the compositions and methods can be combined with bacteriocidal and bacteriostatic properties and that one might "carry out quantitative and semi-quantitative individual determinations of special types of microorganisms" without expense and undue effort (col. 5, line 17) and they teach that a range of bacterial concentrations can be used in the instant method of detection and that the amount of colorant necessary for the desired detection can be easily determined (Example 1).

LaClair teaches that "[f]luorescent dyes possess reactive linkers for conjugating to nucleic acids, carbohydrates and peptides. The conjugates fluoresce in the visible and UV spectrum and have an excellant solvochromatic response as compared to other fluorescence or chromatic labels. The conjugates are stable but also have medium sensitive. The fluorescent dyes have little triplet state formation and are not photoreactive, making them an excellent substance for biological investigations. Uses for the dyes include protein labelling, DNA labelling, single molecule spectroscopy and fluorescence. A synthesis of the dyes is disclosed. Methods of use include the detection of carbohydrate-protein interactions" (abstract) and that has been an increased interest in carbohydrate-protein interactions "due to the participation of these events in

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a wide variety of disease related processes including: cellular growth-development, fertilization, metastasis, inflammatory response, as well as bacterial and viral recognition" (col. 2, lines 5-10). He also teaches "[c]harge transfer labels, such as 5-(dimethylamino)-1-naphthalenesulfonyl or dansyl chloride, have been extensively used for the detection, characterization and localization of carbohydrates, phospholipids, proteins, oligonucleotides as well as numerous other synthetic and natural materials. These materials typically experience a shift in their UV/visible absorption and/or fluorescence spectra with respect to the nature of their solvent shell" (col. 3, lines 54-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Berger et al., Inoue, Irish, and LaClair to achieve the instant invention as recited. One would have reasonable expectation of success in that Berger et al., Inoue and Irish teach multiple variants on the dyes that can be used and methods that can be employed to expose the microbe of interest to the dye. As well, LaClair teaches a new class of dyes for microbe detection that are based on carbohydrate-protein surface adhesion.

#### Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa J. Hobbs whose telephone number is 571-272-3373. The examiner can normally be reached on Monday to Friday, 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon P. Weber can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lisa J. Hobbs/ Primary Examiner Art Unit 1657

ljh